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Revision of the genus *Dromica*. Part IV. Species closely related to *Dromica albivittis* (Coleoptera: Cicindelidae)

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ABSTRACT

Two new species of tiger beetles from South Africa, *Dromica heinemanni* sp. n. and *D. praticola* sp. n., are described and illustrated. A detailed redescription of *Dromica albivittis* Chaudoir, 1865 is given based on the revision of the holotype. *Dromica bertinae* C.A. Dohrn, 1891, presently listed as a synonym of *D. albivittis*, is regarded as a *nomen dubium*. An identification key to males and a distribution map for species of the *D. albivittis* complex are provided.

KEY WORDS: Coleoptera, Cicindelidae, *Dromica*, tiger beetles, taxonomy, new species, Afrotropical, South Africa.

INTRODUCTION

In his study, Cassola (2002) referred to the necessity for a more thorough examination of the *Dromica albivittis* complex. Among specimens purported to be *D. albivittis*, he recognised two distinct species occurring in South Africa: specimens from Limpopo, Mpumalanga, and KwaZulu-Natal, showed a massive, inflating aedeagus with a short, regularly tapering apex; whereas specimens from the Drakensberg Mountains in KwaZulu-Natal had a more slender sigmoid aedeagus, with the apex extended into a subrectangular apical beak. Subsequently, I examined the type of *D. albivittis*, and discovered that the shape of its aedeagus does not correspond to either of Cassola's descriptions, but instead is slender and sigmoid with a short, discoid, almost circular apical beak. Consequently, it follows that there are at least three different species within the *D. albivittis* complex.

MATERIAL AND METHODS

For the examination of the inner structure of the aedeagi, some specimens were placed in Scheerpeltz solution for softening. The dissected aedeagi were cleaned and treated with 5–10% KOH solution for thorough clearing of the inner structure, when necessary. The aedeagi were set on a recessed slide for observation under a stereomicroscope, for illustrations in a medium according to Lompe (1986), and finally mounted on the paper card of the related specimen with cellulose glue. The measurement of body length refers to the body excluding the labrum and the apical spine.

The following abbreviation and acronyms are used:

a.s.l.	– above sea level;
BMNH	– British Museum of Natural History, London, Great Britain;
DEI	– Deutsches Entomologisches Institut, Eberswalde, Germany;
DMSA	– Durban Museum, Durban, South Africa;
EWC	– Erich Werner Collection, Höchstadt, Germany;
FCC	– Fabio Cassola Collection, Rome, Italy;
KWC	– Karl Werner Collection, Peiting, Germany;
MNHN	– Muséum National d'Histoire Naturelle, Paris, France;
MRAC	– Musée Royal d'Afrique Centrale, Tervuren, Belgium;

NMSA – Natal Museum, Pietermaritzburg, South Africa;
OUMNH – Oxford University Museum of Natural History, Oxford, Great Britain;
PPRI-NCI – Plant Protection Research Institute, National Collection of Insects, Pretoria, South Africa;
PSC – Peter Schüle Collection, Herrenberg, Germany;
TMSA – Transvaal Museum, Pretoria, South Africa.

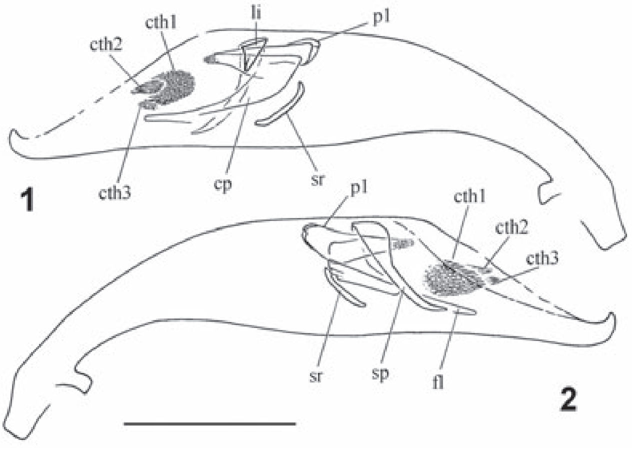
The following symbols are used in type descriptions: the backslash symbol '\' separates data from different labels; my remarks and clarifications are given in square brackets.

TAXONOMY

D. albivittis, *D. praticola* sp. n. and *D. heinemanni* sp. n. are distinguishable within the genus *Dromica* by the combination of discontinuous, oblique elytral costae and a continuous supra-marginal whitish band reaching from the base to the apex of the elytron. Specimens of *D. heinemanni* collected from vastly diverse and separate localities were available for study. These specimens show a high variability, for example, in the shape and sculpture of the pronotum and the development of the elytral costae (Figs 7, 8). As the available material for all three species is rather scanty and the variability of the other two species could not be investigated sufficiently, the only reliable diagnostic feature at present is the shape of the aedeagus.

Cassola (2002) tentatively classified *D. albivittis* within the genus *Pseudodromica*, based on the characteristic shape of the aedeagus of the specimens from Limpopo. Regarding the inner structure of the endophallus, there is a significant correlation between the inner structure of *D. albivittis* and its relatives, and *Dromica coarctata* Dejean, 1826, the type species of the genus *Dromica*. Hence, the classification of Cassola is not adopted in this paper.

Nine different sclerotised elements are distinguishable in the endophallus of *D. coarctata*. They are (in relaxed position) as follows: a straight flagellum, with a slight basal dilatation ('fl'); a large triangular piece above the base of the flagellum ('p1') ending in a small cluster of thorns; a longitudinal stiffening rib beneath the flagellum ('sr'); a



Figs 1, 2. *D. coarctata*, aedeagus, right and left lateral view, Eastern Cape, E of Elliot. Scale bar = 1 mm.

long central plate with its base bending forward into a groove ('cp'); a larger, arciform piece on the left side (spring, 'sp'); and a smaller arciform piece on the right side (limitator, 'li'). Near the apical third of the aedeagus, there are three additional clusters of thorns ('cth1'–'cth3') (Figs 1, 2). In *D. praticola* and *D. heinemanni*, the same elements exist, but the more or less triangular basal part of the central plate ('cp/b') is separated from a large apical groove ('cp/ag'), which is analogous to the bent forward groove of the central plate in *D. coarctata*, but ends in a large cluster of thorns. Near the base of the flagellum, there is an additional, small, and leaf-shaped element ('p2', Figs 15, 16) present in *D. praticola* and *D. heinemanni*, but not in *D. coarctata*.

Key to males of species in the *D. albivittis* complex

1 Aedeagus rather massive, bulging, with a short, regularly tapering apex (Fig. 11) .... **heinemanni** sp. n.
– Aedeagus slender, sigmoid (Figs 5, 15, 16) 2
2 Aedeagus ending in a short, discoid, almost circular apical beak (Fig. 5) .... **albivittis** Chaudoir
– Aedeagus ending in a subrectangular apical beak (Figs 15, 16) .... **praticola** sp. n.

Dromica albivittis Chaudoir, 1865

Figs 3–5, 17

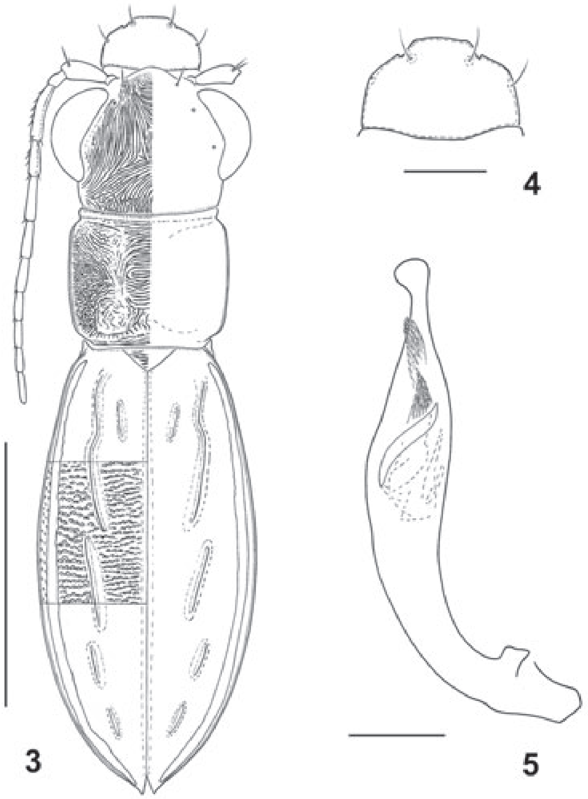
Dromica albivittis: Chaudoir 1865: 48; Fleutiaux 1892: 35; Horn 1910: 160; 1926: 85; Wiesner 1992: 61.
Non *Dromica albivittis* Chaudoir, 1865 *sensu* Horn 1940: pl. 10, fig. 1, which is *D. heinemanni* sp. n.
Non *Dromica albivittis* Chaudoir, 1865 *sensu* Werner 2000: 100, figs 65–65.-2, which is *D. heinemanni* sp. n.
Non *Pseudodromica*? *albivittis* (Chaudoir, 1865) *sensu* Cassola 2002: 33 (*partim*), which is partially *D. heinemanni* sp. n.

Diagnosis: *D. albivittis* resembles *D. praticola* and *D. heinemanni* in elytral maculation and sculpture, while differing in the shape of its aedeagus, which is slender, sigmoid (lateral aspect), and ends in a short, disc-shaped, almost circular apical beak (Fig. 5).

Description:

Body length: 13.5 mm.

Head: Large with discal U-shaped impression between the orbital plates; slight longitudinal impression on each orbital plate, above frons with slight transversal impression; oval bulge in the middle of vertex near posterior margin of pronotum; surface of head striate-rugose, rugae coarse, parallel and curved on orbital plates and centre of vertex, diagonal on posterior portions, transverse and finer behind eyes, composing oval-concentric ornament near anterior margin of pronotum in the middle of vertex, transverse above frons; frons laterally with fine longitudinal rugae, smooth in centre and above antennal insertions; two supra-orbital setae near both eyes; frons with one seta on each side near antennal base; genae glabrous, finely and longitudinally striate-rugose; dorsal colour of head, frons, and clypeus glossy black with strong coppery, golden, and green reflections; genae black with metallic green and coppery lustre, violet along margin of eye; mandibles slender, black, except for longitudinal, yellowish patch basally on outer edge; ventro-lateral base with some metallic greenish reflections; apical tooth long, two inner teeth small, one basal tooth slightly larger than central teeth; labrum of males



Figs 3–5. *D. albivittis*, holotype, male, KwaZulu-Natal, Durban: (3) habitus, (4) labrum, (5) aedeagus. Scale bars = 5 mm in Fig. 3 and 1 mm in Figs 4, 5.

transverse, four setae, two sub-lateral impressions basally, centre longitudinally vaulted; median part of labrum protruding with two small lateral teeth, together with another two small teeth on outer edges of labrum; colour yellowish, outer margin and around insertions of setae black (Fig. 4).

Maxillary and labial palpi testaceous, except terminal palpomeres black, with metallic reflections; penultimate labial palpomere long, parallel-curved, moderately thickened. Antennae rather short, slightly longer than the base of elytra; scape and antennomeres 2–4 black, with strong metallic green, golden and coppery reflections, four erect setae near tip of scape, nine spiniform setae on ventral margin of third antennomere and two or three spiniform setae on ventral margin of antennomere 4; antennomeres 5–11 dark brown, finely and evenly pubescent, antennomeres 5–8 slightly thickened, from antennomere 9 narrowing towards tip.

Thorax: Pronotum wider than long, subrectangular, basally slightly narrower than apically, anterior and posterior sulcus pronounced, curved to mid-line; anterior and posterior lobes very narrow, two longitudinal, gibbous protuberances on median lobe, more bulging basally; pronotal surface striate-rugose; rugae coarse, transverse on disc between protuberances, finer and irregularly wavy along lateral margins; oblique, coarse and less dense on protuberances of middle lobe; dorsal colour same as head; prosternum and mesosternum black, with slight metallic greenish and coppery lustre, glabrous; proepisterna black, with slight metallic lustre, glabrous.

Elytra: Elongate, oval, maximum width near middle; humeri indistinct; apices of males ending in short but pointed sutural spine; discal punctation of elytra fine, dense, more or less merging together transversely, slightly smaller towards apex; maculation composed of whitish, slightly elevated supra-marginal band, reaching from base to apex; punctation of lateral area between band and elytral margin less dense, interstices more glossy; elytral disc with row of four, slightly oblique disconnected costae, costae progressively smaller towards apex; basal costa slightly S-shaped reaching basal third; between basal costa and elytral suture another short costa parallel to suture; dorsal colour black with strong coppery and greenish lustre; epipleura black; metasternum and metepisternum glabrous.

Legs: Femora black, except 'knees' rufescent; tibiae and tarsi rufescent, slightly darkened apically; procoxae and mesocoxae anteriorly with white pubescence; left metacoxa distally with seven setigerous punctures (right metacoxa incomplete); one seta near hind outer edge, doubled at one side; protrochanters and mesotrochanters rufescent, with subapical seta.

Abdomen: Abdominal sterna glabrous except one sensorial seta near hind margins on each side; colour black.

Aedeagus slender, sigmoid, ending in long, dorsal discoid expanded apical beak; sclerites within inner sac (Fig. 5).

Holotype: ♂ SOUTH AFRICA: *KwaZulu-Natal*: 'Natal, [red, oval label, handwritten] \ MUSEUM PARIS, Natal [handwritten], COLL. CHAUDOIR 1874 [blue label with black rim] \ 143, 74 [round label, handwritten] \ albivittis, Chaud, Zoulous., Natal. Grut [handwritten] \ TYPE [red card] \ HOLOTYPE, Dromica albivittis, Chaudoir 1865, Schüle det. 2002' [red card] (MNHN).

Distribution: South Africa (KwaZulu-Natal, Durban [= Port Natal]).

Dromica heinemanni sp. n.

Figs 6–11, 17

Dromica albivittis Chaudoir, 1865 *sensu* Horn 1940: 278, pl. 10, fig. 1.
Dromica albivittis Chaudoir, 1865 *sensu* Werner 2000: 100, figs 65–65.-2.
Pseudodromica? *albivittis* (Chaudoir, 1865) *sensu* Cassola 2002: 33 (*partim*).

Diagnosis: *D. heinemanni* resembles *D. albivittis* and *D. praticola* in the elytral maculation and sculpture. It differs in the shape of the aedeagus, which is massive and bulging, with a short, regularly tapering apex in lateral view (Fig. 11). The aedeagus in *D. albivittis* is more slender, sigmoid, ending in a short, disc-shaped, almost circular apical beak (Fig. 5). In *D. praticola*, the aedeagus is similarly slender and sigmoid, but ends in a subrectangular apical beak (Figs 15, 16).

Description:

Body length: 12.3–15.5 mm.

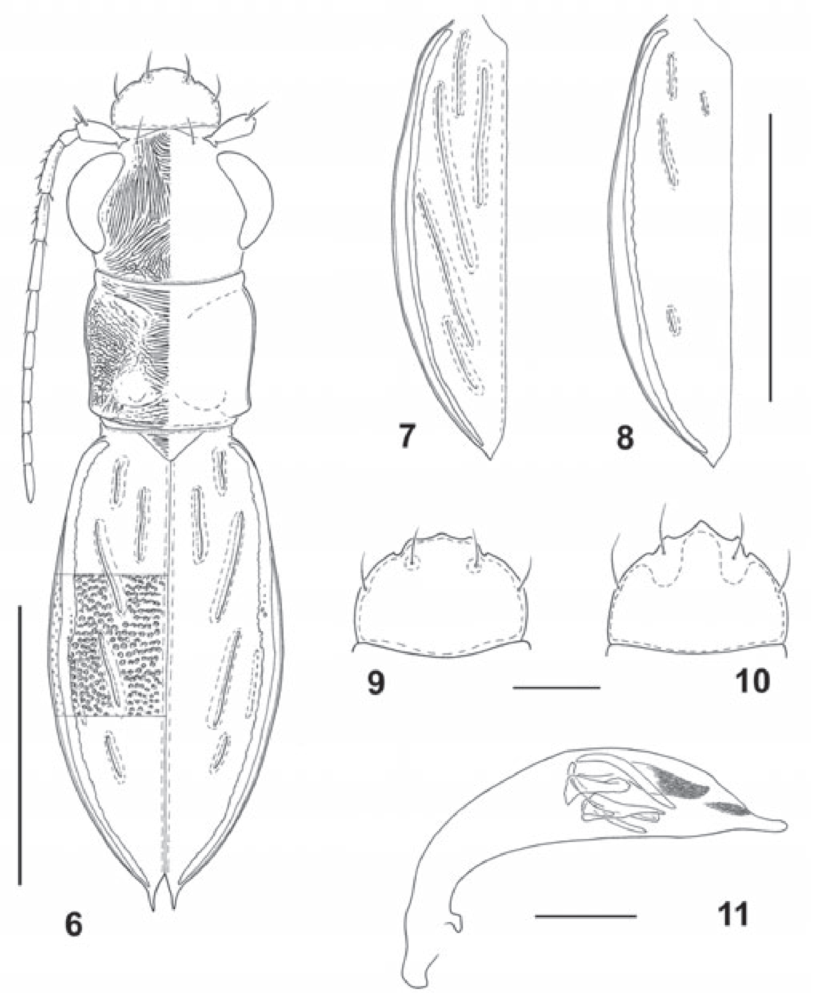
Head: Large, dorsally with irregularly U- or X-shaped impression on disc between orbital plates, impression sometimes extended on orbital plates to inner margins of eyes; sometimes slightly bulging in the middle of vertex near posterior margin of pronotum; surface of head striate-rugose, rugae coarse, parallel and curved on orbital plates and centre of vertex, diagonal on posterior portions, transverse above frons, composing oval-concentric ornament near anterior margin of pronotum in the middle of vertex; frons laterally with fine longitudinal rugae, smooth in centre and above antennal insertions; two supra-orbital setae near both eyes; frons with one seta on each side near antennal base; genae glabrous, longitudinally striate-rugose, rugae finer towards base of mandibles; dorsal colour of head, frons, and clypeus glossy black with strong coppery or golden-greenish reflections; genae black with metallic green, violet, and coppery reflections; mandibles black to rufescent-black, except longitudinal, yellowish patch basally on outer edge; ventro-lateral base with some golden greenish or bluish green reflections; apical tooth long, two central teeth small, one basal tooth larger than central teeth; labrum of male transverse, with four setae, two sub-lateral impressions at base, centre longitudinally vaulted; median part of labrum protrusive with three lateral teeth, two additional small teeth on outer edges of labrum (Fig. 9); female labrum proportionally longer, median part more protrusive, median teeth more prominent (Fig. 10); colour in both sexes yellowish, margin and portions around insertions of setae black.

Maxillary and labial palpi testaceous, except terminal palpomeres black with white outer tips; penultimate labial palpomere long, parallel-curved, moderately thickened. Antennae rather short, slightly longer than base of elytra in males; shorter in females; antennal scape and antennomeres 2–4 black with metallic green, golden and coppery reflections, four erect setae on tip of scape, five to nine spiniform setae on ventral margin of third antennomere and one or two spiniform setae on ventral margin of antennomere 4; antennomeres 5–11 dark brown, finely and evenly pubescent, antennomeres 5–8 slightly thickened, from antennomere 9 narrowing towards tip.

Thorax: Pronotum wider than long, subrectangular, base slightly narrower than apex, anterior and posterior sulcus well pronounced, curved to mid-line; anterior and posterior lobe very narrow, two longitudinal, gibbous protuberances on median lobe, more bulging at base; pronotal surface striate-rugose; rugae coarse, transverse to slightly oblique on disc between protuberances and on median portions of basal and apical lobe, finer and irregularly wavy along lateral margins; oblique, coarse and less dense, irregularly wavy, sometimes more or less descending on protuberances of middle lobe; dorsal colour same as head; prosternum and mesosternum black, with slight metallic green and coppery reflections, glabrous; proepisterna black, with a slight metallic lustre, glabrous.

Elytra: Elongate, oval, maximum width near middle; humeri indistinct; apices ending in short but pointed sutural spine in males, rounded or edged in females; discal punctation of elytra fine, dense, more or less merging transversely, slightly smaller towards apex; maculation composed of whitish, slightly elevated supra-marginal band, reaching from base to apex; punctation of lateral area between band and elytral margin less dense, interstices more glossy; elytral disc with row of three to five oblique disconnected costae, basal and apical costae smaller than central ones; between basal costa and elytral suture another short costa parallel to suture; costae sometimes reduced (Fig. 8) or extended (Fig. 7); dorsal colour black with strong coppery and greenish lustre; epipleura black with metallic reflections; metasternum and metepisternum glabrous.

Legs: Femora black, except for rufescent 'knees'; basal area of tibiae and tarsi rufescent, darkened apically; procoxae and mesocoxae anteriorly with white pubescence; metacoxae distally with four to seven setigerous punctures; one seta near hind outer edge; protrochanters and mesotrochanters pitch-black to black, with subapical seta.



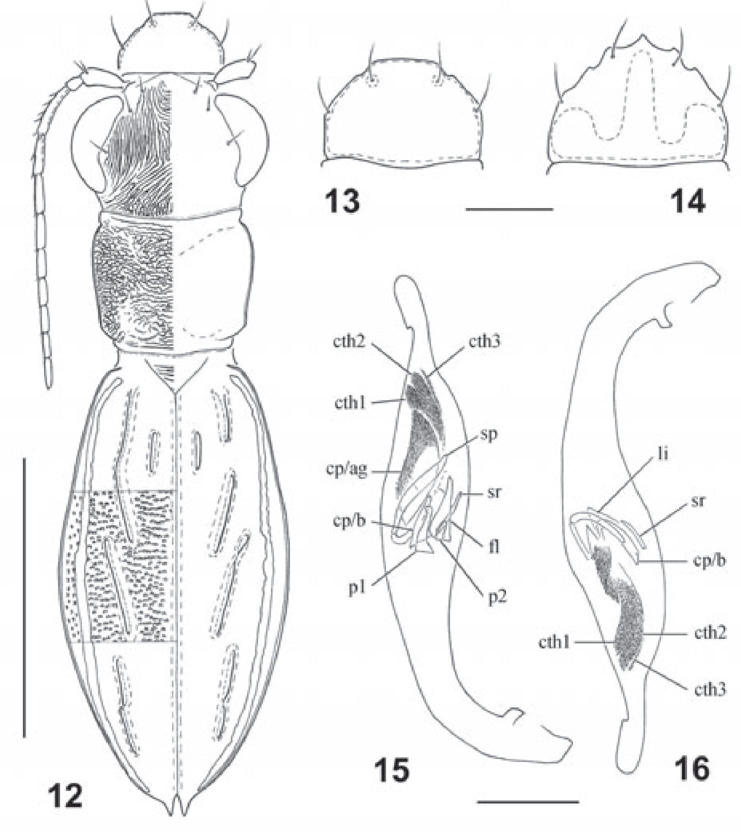
Figs 6–11. *D. heinemanni* sp. n.: (6) habitus, holotype, male, Mpumalanga, 10 km NE Badplaas; (7) elytron, male, KwaZulu-Natal, Carolina; (8) elytron, male, Limpopo, Woodbush Drive; (9, 10) male and female labra, KwaZulu-Natal, Carolina; (11) aedeagus, holotype. Scale bars = 5 mm in Figs 6–8 and 1 mm in Figs 9–11.

Abdomen: Abdominal sterna glabrous except one sensorial seta near hind margins on each side; colour black.

Aedeagus (Fig. 11) massive, bulging in centre, ending in short regularly tapering apex in lateral view; sclerites within inner sac.

Holotype: ♂ 'SOUTH AFRICA MPU [Mpumalanga], Groenvaly, 10km NE Badplaas, 25°52'S:30°46'E; xi.1995 S.H. Foord \ C12, II/94, Car10 [handwritten] \ VOUCHER SPECIMEN: University of Pretoria, Dept. Zoology & Entomology, Grassland fragmentat exper., Project leader JWH Ferguson \ NATIONAL COLL., OF INSECTS, Pretoria S.Afr. \ HOLOTYPE, Dromica heinemanni, Schüle det. 2004' [red card] (PPRI-NCI).

Paratypes: SOUTH AFRICA: *Limpopo*: 'Mus. Berol.\ Transvaal, Zoutpansberg , Mphome, Magd. Knothe S. [blue label]\ albivittis [handwritten]\ abgebildet [red ink, handwritten]\ Coll. W. Horn, DEI Eberswalde' (1♀ DEI); 'Transvaal, Zoutpansberg, Mphome, Magd. Knothe S. [blue label]]\ Coll. W. Horn, DEI Eberswalde' (1♂ DEI); 'Transvaal [handwritten]\ Coll. W. Horn, DEI Eberswalde' (1♂ DEI); 'Transvaal, Zoutpansberg, Mphome, Magd. Knothe S. [blue label] \ 67571' (1♂ ZMB); 'Transvaal, Zoutpansberg, Mphome, Magd. Knothe S. [blue label]' (1♀ ZMB); 'Woodbush Drive, N.Tvl, XII.1965, E. Schulze, 23.52°S:29.55°E \ det.C. v. Nidek 1970, Dromica, albivittis Chd. [handwritten] \ DROMICA, albivittis [handwritten], Det. F. Cassola, 1987' (1♂ KWC); 'Woodbush Drive, N. Tvl, XII.1965, E. Schulze, 23.52°S:29.55°E \ det.C.v.Nidek 1970, Dromica, albivittis Chd. [handwritten] \ DROMICA, albivittis [handwritten], Det. F. Cassola, 1987' (3♂ TMSA); 'E-Y:3565, general collect. 1410 m, leg. TMSA staff' (1♂ 1♀ TMSA); 'Woodbush Drive, N. Tvl, XII.1965, E. Schulze, 23.52°S:29.55°E \ DROMICA, albivittis [handwritten], Det. F. Cassola, 1987' (1♂ 1♀ FCC); *Mpumalanga*: 'Barberton, Transvaal [handwritten] \ DMSA, COL 1589' (1♂ DMSA); '18.11.2001 RSA, Mpumalanga Middelburg to Stoffberg 43,5 km after Middelburg P. Schüle leg.' (1♂ 1♀ PSC); '18.11.2001 RSA, Mpumalanga, Carolina, P. Schüle leg.' (2♂ 2♀ PSC); '17.xi.2000 P. SCHÜLE, RSA MPUMALANGA, 45km after Middelburg, Road to Stoffberg -4-' (1♂ PSC); '18.11.2001 RSA, Mpumalanga Middelburg to Stoffberg 43,5 km after Middelburg P. Schüle leg.' (1♂ EWC); 'Woodbush Drive, N. Tvl, XII.1965, E. Schulze, 23.52°S:29.55°E \ det.C.v.Nidek 1970, Dromica, albivittis Chd. [handwritten] \ DROMICA, albivittis [handwritten], Det. F. Cassola, 1987' (1♂ PSC); 'Piet Retief, 30 km W, E-TRANSVAAL, I.1989, Werner leg., S-AFRICA \ DROMICA, albivittis, Chaudoir, 1865, Det. F. Cassola, 1989' (1♀ KWC); 'RSA 24.XII.1998, Barberton, Tvl., B. BAUME leg. \ Dromica, albivittis CHAUDOIR, WERNER det.'99' (1♀ KWC); 'RSA 24.XII.1998, Barberton, Tvl., M. RINGLER leg. \ Dromica, albivittis CHAUDOIR, WERNER det.'99' (1♂ KWC); 'Dromica, tuberculata, transvaalensis [handwritten] \ DROMICA, albivittis Chd. [handwritten], Det. F. Cassola, 1987' (1♀ TMSA); 'Lydenburg-, distr.1896, (Krantz) \ DROMICA, albivittis [handwritten], Det. F. Cassola, 1987' (1♂ TMSA); 'S. Afr.: Mpumalanga, Sjonajona, Badplaas, 25.44°S:30.40°E \ 11.11.2002'; *KwaZulu-Natal*: 'Natal, [handwritten] \ albicinctella, Chaudoir [handwritten] \ MUS. ROY. AFR. CENTR.\ albivittis Chd.



Figs 12–16. *D. praticola* sp. n., paratypes, all from KwaZulu-Natal: (12) habitus, male, Loteni Nat. Res.; (13, 14) labra: (13) male, Loteni Nat. Res., (14) female, Kamberg Nat. Res.; (15, 16) aedeagus, left and right lateral view, Loteni Nat. Res. Scale bars = 5 mm in Fig. 12 and 1 mm in Figs 13–16.

[handwritten], P. Basilewsky det.' (1♂ MRAC); 'Dromica, albivittis Chd., Natal Guenzlies [?], Stevens 1863, If [?], [handwritten] \ Oxford University, Museum of Natural, History (OUMNH), Ex Hope/Westwood, Carabidae Cab.1 d.3' (1♂ OUMNH).

Other material examined: SOUTH AFRICA: *Limpopo*: 'Barberton, Transv. [handwritten]\ ex coll. Péringuey\ Dromica, albivittis, Chaud. [handwritten]\ Coll. W. Horn, DEI Eberswalde\ Dromica cf. heinemanni Schüle 2004, Schüle det. 2004' (1♀ DEI).

Distribution: South Africa (Limpopo, Mpumalanga, KwaZulu-Natal).

Habitat: *D. heinemanni* was observed on an extensive pasture with some open loamy spots at about 1600 m a.s.l., near Carolina, KwaZulu-Natal. It occurs sympatrically with *D. furcata* Boheman, 1848.

Remarks: The female specimen of *D. heinemanni* collected by Martha Knothe, which was deposited in DEI, bears a handwritten label with the word 'abgebildet' [German, 'illustrated']. H. John used such labels for specimens illustrated in Horn (1940). In the same collection, there is a male specimen—confirmed to be *D. heinemanni*—with the same kind of locality label. I therefore regard the female from the same locality as being *D. heinemanni* as well.

Dromica praticola sp. n.

Figs 12–17

Pseudodromica? *albivittis* Chaudoir, 1865 *sensu* Cassola 2002: 33 (*partim*).

Diagnosis: *D. praticola* resembles *D. albivittis* and *D. heinemanni* in the elytral maculation and sculpture, but differs in the shape of the aedeagus, which is slender and sigmoid, ending in a subrectangular apical beak (Figs 15, 16). The aedeagus in *D. heinemanni* is massive and bulging, with a short, regularly tapering apex (Fig. 11), whereas the aedeagus in *D. albivittis* is slender and sigmoid, but ends in a short, disc-shaped, almost circular apical beak (Fig. 5).

Description:

Body length: 12.0–14.0 mm.

Head: Large, dorsally with X-shaped impression on disc between orbital plates; each orbital plate with longitudinal impression apically and smaller circular one basally, another slight impression above frons; discal surface of head striate-rugose, rugae coarse, parallel and curved on orbital plates, parallel, straight in the middle of vertex, diagonal on posterior portions, transverse and finer behind eyes; near anterior margin of pronotum wavy, composing oval-concentric ornament in the middle of vertex; transverse above frons; frons laterally with fine longitudinal rugae, smooth in centre and above antennal insertions; two supra-orbital setae near both eyes; frons with one seta on each side near antennal base; genae glabrous, longitudinally striate-rugose, striae finer towards base of mandibles; dorsal colour of head, frons and clypeus black with coppery and golden-green reflections; genae black with metallic green and coppery reflections, laterally behind eyes bluish green to violet and coppery; mandibles slender, black, except longitudinal, yellowish patch basally on outer edge and rufescent patch near base of basal tooth; ventro-lateral base with some metallic green reflections; apical tooth long, two central teeth small, one basal tooth slightly bigger than central teeth; labrum of males wider than long, four setae, two sub-lateral impressions basally, centre longitudinally vaulted; median part of labrum protrusive, truncate with rounded edges, outer edges of labrum with two small teeth; colour yellowish, outer margin and around insertions of setae black (Fig. 13); labrum of females proportionally longer, median part more protrusive, median teeth more prominent; colour yellowish, outer margin and centro-apical portions except yellowish median area black (Fig. 14).

Maxillary and labial palpi testaceous, except terminal palpomeres black; penultimate labial palpomere long, parallel-curved, moderately thickened. Antennae short in males, reaching base of elytron; scape and antennomeres 2–4 black with strong metallic green, golden and coppery reflections, four erect setae near tip of scape, five spiniform setae on ventral margin of third and one spiniform setae on ventral margin of antennomere 4; antennomeres 5–11 dark brown to black, finely and evenly pubescent, antennomeres 5–8 slightly thickened, from antennomere 9 narrowing towards tip.

Thorax: Pronotum wider than long, subrectangular, base slightly narrower than apex, anterior and posterior sulcus well pronounced, curved to mid-line; anterior and posterior lobes very narrow, two longitudinal, gibbous protuberances on median lobe, more bulging basally; pronotal surface striate-rugose; rugae coarse, irregularly transverse on disc between protuberances and in median portions of basal and apical lobes, finer and irregularly wavy along lateral margins; oblique, coarse and less dense on protuberances of middle lobe, descending on disc of basal portion of protuberance; dorsal colour same as head; prosternum and mesosternum black, with slight metallic green reflections, glabrous; proepisterna black, with slight metallic violet lustre, glabrous.

Elytra: Elongate, oval, maximum width near middle; humeri indistinct; apices ending in short but pointed sutural spine in males; apex of female with rounded outer edges and short relegated sutural spine; discal punctation of elytra fine, dense, more or less merging together transversely, slightly smaller towards apex; maculation consisting of whitish, slightly elevated supra-marginal band, reaching from base to apex; punctation of lateral area between band and elytral margin less dense, interstices more glossy; elytral disc with row of four or five oblique, disconnected costae, between basal costa and elytral suture another short costa parallel to suture; dorsal colour black with strong coppery and green lustre; epipleura black with metallic reflections; metasternum and metepisternum glabrous.

Legs: Femora black, except 'knees' rufescent; tibiae and tarsi basally rufescent, slightly darkened apically; procoxae and mesocoxae anteriorly with white pubescence; metacoxae distally with seven setigerous punctures; one seta near hind outer edge; protrochanters and mesotrochanters pitch-black, with subapical seta.

Abdomen: Abdominal sterna glabrous except one sensorial seta near hind margins on each side; colour black.

Aedeagus slender, sigmoid, ending in long, dorsally subrectangular apical beak; sclerites within inner sac; see Figs 15, 16.

Holotype: ♂ 'SA, KwaZulu-Natal, Kamberg, 29.3752°S:29.62859°E, 1818 m, Grassland \ 8 November 2005, Site 14, Active searching. MDTP No: 50862 \ HOLOTYPUS, Dromica praticola, P. Schüle det. 2007 [red card]' (TMSA).

Paratypes: SOUTH AFRICA: *KwaZulu-Natal*: 'Giant's Castle SE 29 29 Ad., xii – 1979, C.A: Scholtz [handwritten, transparent on black film] \ coll. Pretoria [handwritten] \ DROMICA albivittis Chd. [handwritten], Det. F. Cassola, 1981 \ PARATYPUS, Dromica praticola, Schüle det. 2003 [red card]' (1♂ TMSA); 'SA, KwaZulu-Natal, Kamberg, 29.37331°S:29.62798°E, 1814 m, Grassland \ 8 November 2005, Site 13, Active searching. MDTP No: 514 \ PARATYPUS, Dromica praticola, P. Schüle det. 2007 [red card]' (1♀ PSC); same label data except for MDTP No: 1378 and MDTP No: 1480 (2♀ PSC); 'SA, KwaZulu-Natal, Kamberg, 29.37520°S:29.62859°E, 1818 m, Grassland \ 8 November 2005, Site 14, Active searching.

MDTP No: 6010 \ PARATYPUS, Dromica praticola, P. Schüle det. 2007 [red card]' (1♀ TMSA); same label data except for MDTP No: 6586 (1♂ NMSA); same label data except for MDTP No: 55797 (1♀ TMSA); same label data except for MDTP No: 3080 (1♂ PSC); 'SA, KwaZulu-Natal, Kamberg, 29.38472°S: 29.65361°E, 1750 m, Grassland \ 13 November 2005, Site 17, Active searching. MDTP No: 6689 \ PARATYPUS, Dromica praticola, P. Schüle det. 2007 [red card]' (1♀ TMSA); '27.xi.2000 P. Schüle, RSA KWAZULU/NATAL, Loteni Game Reserve, 1800 m -30- \ PARATYPUS, Dromica praticola, Schüle det. 2003 [red card]' (1♂ PSC).

Distribution: South Africa (KwaZulu-Natal Drakensberg).

Habitat: *D. praticola* was collected by the author on Mountain Grassland at about 1800 m a.s.l. in the Loteni Nat. Res. and occurs sympatrically with *Lophyra pseudominax* Wiesner, 2001. The specimen was walking slowly on a grassy area on top of a mountain ridge.

Dromica bertinae C.A. Dohrn, 1891, *nomen dubium*

In his description, C.A. Dohrn dedicated *D. bertinae* to Berta Heinemann, a teacher who had been living for some years in South Africa (Transvaal) and who had brought dozens of beetles to Germany, including the single female specimen of *D. bertinae*. Without examining the type specimen, Péringuey (1893) presumed a synonymy with *D. albivittis*. This presumption was confirmed later by Horn (1896) after he studied the type specimen. Based on the original publication, the name *D. bertinae* C.A. Dohrn cannot be assigned unambiguously to any of the known taxa within the *Dromica albivittis* complex. Parts of the collections of Carl August Dohrn and his son Heinrich Dohrn, originally deposited in the Stettin Museum of Natural History (Dohrn 1892), were destroyed during World War II, and their fragments were later moved to the Warsaw

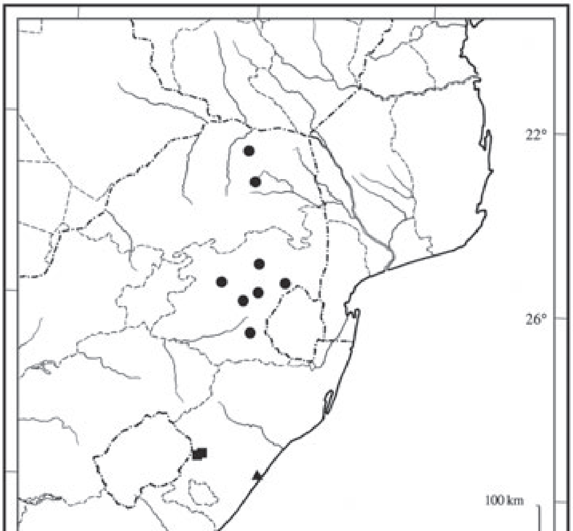


Fig. 17. Distribution of *D. albivittis*, *D. heinemanni* and *D. praticola*.

Zoological Museum (Basilewsky 1957). Upon my request, neither the museum staff at the Warsaw Museum (Tomaszewska, pers. comm.) nor at MRAC, MNHN, BMNH, or DEI, could find any type material. Kleine's (1944) unpublished list of material, received from the former Stettin Museum, does not mention the name *D. bertinae*. Remarkably, in his publication on Dohrn 'type' material received for study from the Warsaw Museum, Basilewsky (1957) wrote some notes regarding the 'male type specimen' of *D. bertinae*. The species description, however, was based on a single female (Dohrn 1891). Hence, Basilewsky's note most probably does not refer to Dohrn's type specimen. In DEI, one female specimen has the handwritten label 'Transvaal'. The handwriting differs from Dohrn's and Horn usually attached an additional 'type' label when he studied a type specimen bearing no original type label (Behne pers. comm.). Following the ICZN (1999), I prefer to set aside *D. bertinae* C.A. Dohrn as a *nomen dubium*.

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